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MONTHLY PROGRESS REPORT #5

on the

TERRAIN AVOIDANCE RADAR SYSTEM

For the period from

30 September to 31 OCTOBER 1957

G. O. AAD-30465

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PROGRESS FOR THE PERIOD FROM 30 SEPTEMBER TO 31 OCTOBER 1957

SYSTEM CONSIDERATIONS:

It was decided to reduce the antenna size and eliminate the antenna servo. This was done to reduce frontal area. The new antenna beamwidth is $2^{\circ} \times 2^{\circ}$ which appears to give adequate resolution. For a full discussion of this see the Revision of Design Specification dated Oct. 24, 1957. Design is proceeding on the basis that the equipment will be mounted in an unknown aircraft. The antenna can be mounted in a pod or other available location by providing a suitable mounting base.

ANTENNA:

The model of the rolled-up antenna feed horn is still in the model shop. The high-speed rotary joint has been tested and found satisfactory. Work has been started on the design of the smaller antenna.

TRANSMITTER:

The design of the transmitter was completed and submitted to drafting.

MODULATOR:

Drafting is nearly complete on the modulator. A set of transformers has been received and a breadboard modulator is being built.

AFC:

The AFC drawings have been completed and released to the model shop.

RECEIVER:

The drawings of the Pre-Amp and Post-Amp have been completed and checked. As soon as a few corrections are made they will be released to the model shop.

SYNCHRONIZER:

The synchronizer design was completed and information released to drafting early this month. The layout has been completed by drafting and detail drawings are now being made.

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"X" SCOPE:

Drafting is now in progress on the "X" Scope. A cathode ray tube was received and incorporated in the breadboard. Debugging of the circuits is in process. A shield for the CRT has not been received. The unshielded tube picks up enough interference to prevent erasing just ahead of the writing gun as planned.

"E" SCOPE:

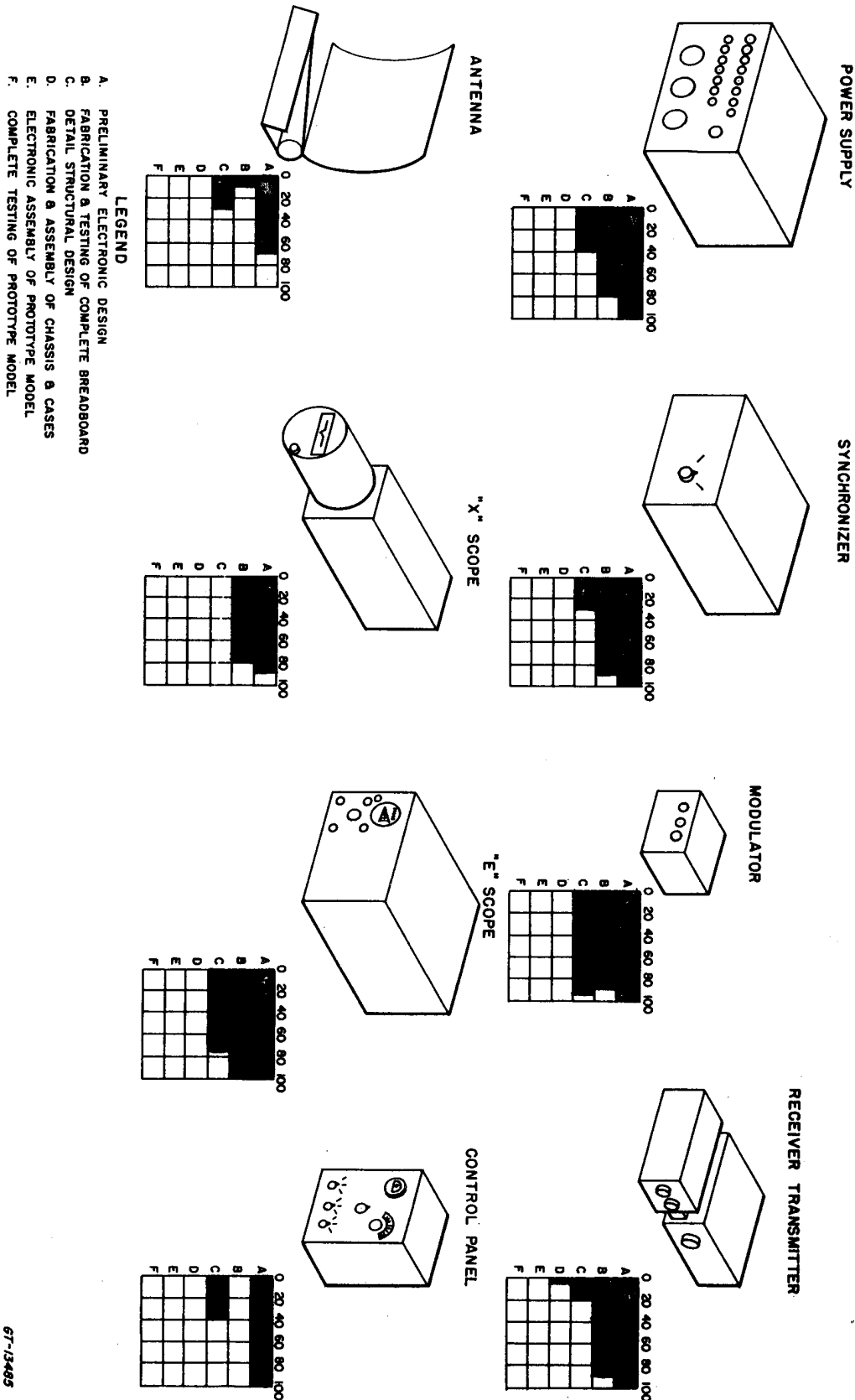
Drafting is proceeding on the "E" Scope. Layout of the horizontal and vertical subchasses and the main chassis is nearly complete.

CONTROL PANEL:

The control panel design has been completed and submitted to drafting.

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STATUS OF TERRAIN AVOIDANCE RADAR



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